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23117 7590 09/30/2009 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
COLE, ELIZABETH M				
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/530,435  
Filing Date: September 28, 2005  
Appellant(s): VEILLAT ET AL.

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Bryan H. Davidson  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 6/1/09 appealing from the Office action  
mailed 3/3/09

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

WO9114029	Kirkland et al	09-1991
6,148,597	Cook	11-2000
JP87015646	Toray Ind Inc	4-1987

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-3, 5-9, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook, U.S. Patent No. 6,148,597 in view of WO 91/14029. Cook teaches a method of manufacturing a polyolefin fishing line which corresponds to the claimed monofilament like product comprising the steps of providing a plurality of polyolefin fibers, exposing the fibers to heat at a temperature above the melting point of the polyolefin, and drawing the heated plurality of fibers. See col. 3, lines 33-50; col. 4, lines 8-16. The plurality of polyolefin filaments can be joined together by plying or braiding before the heating and drawing step. See examples. The product exhibits monofilament-like properties. See col. 3, lines 23-27. The plurality of filaments can be further treated with polyurethanes and oils either before or after processing. See col. 4, line 59 – col. 5, line 21. With regard to the limitation that the process takes place without partial melting, Cook teaches heating to cause at least partial fusion and applying tension to prevent melting, so Cook teaches fusion without partial melting. See col. 3, line 1 - col. 4, line 352. Cook differs from the claimed invention because it does not disclose that the polyolefin fibers are staple fibers. WO '029 teaches that yarns can be made from staple fibers of ultra high molecular weight polyethylenes in addition to continuous filaments of ultra high molecular weight polyethylenes and that a benefit of using staple fibers to make the yarns is that it is less expensive because it permits the use of some fiber which would have been wasted. See page 3, lines 10-19. Therefore,

it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed staple fibers of ultra high molecular weight polyethylene rather than continuous filaments of ultra high molecular weight polyethylene as taught by Cook, in view of the teaching of WO '029 that both types of fibers were known to be suitable for fabrication into yarns and because WO '029 teaches that using staple fibers can make the yarns less expensive since it permits the use of some fibers which would have been wasted.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cook in view of WO '029 as applied to claims above, and further in view of JP 87015646. Cook does not disclose that the staple fibers are obtained by stretch-breaking a multifilament yarn. JP '646 teaches that a known method of forming staple fibers was by stretch-breaking multifilament yarns. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the process of stretch breaking taught by JP '646 to form the staple fibers, in view of the teaching of JP '646 that this was a known method of obtaining staple fibers.

#### **(10) Response to Argument**

Appellant argues that Cook in view of WO '029 does not render the claimed invention obvious because the comparative data shows that the claimed invention has an unexpected improvement in abrasion resistance and that this would not have been expected from the teachings of Cook in view of WO '029. However, initially, it is noted

that the rejection is over a combination of references rather than over Cook alone. WO '029 teaches using staple fibers and provides a reason for using staple fibers over continuous fibers because staple fibers are less expensive. Cook discloses the claimed process except that it does not teach employing staple fibers to make the yarn. WO '029 is relied on to show that yarns can be made from staple fibers of ultra high molecular weight polyethylenes in addition to continuous filaments of ultra high molecular weight polyethylenes and that a benefit of using staple fibers to make the yarns is that it is less expensive because it permits the use of some fiber which would have been wasted. See page 3, lines 10-19. While it is true that neither WO '029 nor Cook teach that the resulting yarn would have a higher than expected abrasion resistance it is noted that the instant claims are drawn to the process, not to the article, and do not recite a particular abrasion resistance value. Additionally, the comparative data set forth in the specification and discussed in the Dirks Declaration is drawn to a particular type of fiber from a particular example of Cook '597 which comprises a braided precursor made from a particular yarn having a particle titre. Similarly, the examples set forth in the specification employ a particular polyolefin material, (Ultra High molecular weight polyethylene yarn), having a titre of 1760 dTex, a tensile strength of 28 cN/dTex, a tensile modulus of 910 cN/dTex and a denier per filament of about 1dpf which was processed into staple fibers by stretch breaking and then spun into a single strand yarn. However, the claims are not specific as to the type of polyolefin employed, the titre or denier per filament, tensile strength or tensile modulus of the fibers, or how the fibers are formed or processed. Therefore, the showing is not

commensurate in scope with either what is shown in Cook or what is claimed. Additionally, there is nothing in the Declaration which contains reasoning or data which compares the claimed invention to the prior art or which extrapolates the results obtained in the specific examples with the specific materials to the broader claims which are not specific with regard to materials, denier, titre, etc. Further, the teaching of WO '029 establishes that in the art of making yarns from ultra high molecular weight polyethylenes, that it was known to use either continuous or staple fibers to form the yarn. Finally, it is noted that "The fact that appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious." Ex parte Obiaya, 227 USPQ 58, 60 (Bd.Pat. App. & Inter. 1985).

Appellant argues that the Dirks Declaration establishes that the person of ordinary skill in the art would expect that the abrasion resistance of monofilament-like fibers made from precursor staple fibers would be worse than monofilament like fibers made from precursor continuous fibers because the presence of an increased number of borders in the staple yarn would make multiple points of potential breakage at the borders. However, there is nothing in the Declaration which establishes that the presence of borders in a fused precursor filament would be expected to be the point of breakage. The staple yarns which are made up of multiple staple length fibers which are spun together when subjected to the abrasion test set forth in the specification, (wherein the finished fiber product is extended under tension and abraded with a ceramic wheel), might be expected to have an improved resistance to breakage during

this test since it has multiple shorter fibers going in different directions rather than few continuous fibers all extending in a direction perpendicular to the abrading wheel. Therefore, the Declaration does not contain data to support this assertion or to support the idea that in general, the person of ordinary skill would expect lower abrasion resistance in a staple yarn than in a continuous filament yarn.

With regard to the rejection of claim 4, Appellant states that while it is true that it is known to make staple fibers as taught by JP '646, that the Declaration establishes an unexpected improvement over the prior art products. These arguments are addressed above.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Elizabeth M. Cole/

Primary Examiner, Art Unit 1794

Conferees:

/Rena L. Dye/  
Supervisory Patent Examiner, Art Unit 1794

/Benjamin Utech/

Primary Examiner